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TSCA NON-CONFIDENTIAL BUSINESS INFORMATION

DOCUMENT DESCRIPTION	DOCUMENT CONTROL NUMBER	DATE RECEIVED
8EHQ- 92-12415	89110000127	2/24/11

COMMENTS: COMMUN S (DECLASS)

DOES NOT CONTAIN CBI

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MR# 333423

February 18, 2011

VIA CERTIFIED MAIL

8EHQ-0211-12415B
DCN: 89110000127

Attn: TSCA Declassification Coordinator
U.S. Environmental Protection Agency
Office of Pollution Prevention and Toxics
Document Control Office (7407M)
Washington, D.C. 20460

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Re: Declassification Activity-TSCA §8(e) Submission
8EHQ Number: 8EHQ-1092-12415s (Bar Code 88920010622)
Supplemental Submission - Revised Public Copy of Submission

Dear TSCA Declassification Coordinator:

This submission is submitted in connection with the EPA 2010 CBI Declassification Challenge program.

Please find enclosed a revised public copy of the above-identified submission. Any information still claimed as confidential business information (CBI) in the attached revised public copy has been redacted and replaced by brackets. The originally assigned 8EHQ number has been added by the submitter to the first page of the enclosed revised public copy of the submission. The test substance description, as identified in an Index provided to submitter by EPA, is provided on the Attachment to this letter.

Very truly yours,

Andrea V. Malinowski

Attachment – Test Substance Description (1 page)
Enclosure – revised public copy of report HLR 608-88

8 9 1 1 0 0 0 0 1 2 7

CONTAINS NO CBI

Attachment

8EHQ Number: 8EHQ-1092-12415s (Bar Code 88920010622)

Test Substance identified in EPA Index – Mixture of:

CAS Number	Chemical Name
102-71-6	TRIETHANOLAMINE
25155-30-0	SODIUM DODECYL BENZENE SULFONATE
65545-80-4	PERFLUOROALKYL ETHOXYLATE
67-63-0	ISOPROPYL ALCOHOL
7732-18-5	WATER
90822-00-2	OLEATE CAPPED CASTOR OIL RX. PRODUCT OF A+B=C WHERE A= POLYFUNCTIONAL ISOCYANATOHEXAMETHYL BURET, B= PERFLUOROALKYL ETHANOL C= MONOCHLOROHYDRIN*THANOLPROPANE, TRI(C8,C10) ESTER ETHYL CAPPED POLYETHYLENE GLYCOL 400, PELARGONATE*NIOBIUM METAL
96-24-2	CONTAMINANT 3 -CHLORO-1, 2-PROPANEDIOL

Revised Public Copy
Originally Assigned 8EHQ Number: 8EHQ-1092-12415s and 8EHQ-1092-12417s
Company Sanitized - No CBI

Study Title

Inhalation Approximate Lethal Concentration (ALC) of Finish K-6659 (17% Emulsion)

Author

Rudolph Valentine

Study Completed On

September 20, 1988

Performing Laboratory

E. I. du Pont de Nemours and Company, Inc.
Haskell Laboratory for Toxicology and Industrial Medicine
Elkton Road, P. O. Box 50
Newark, Delaware 19714

Medical Research No.

8404-001

Laboratory Project ID

Haskell Laboratory Report No. 608-88

GENERAL INFORMATION

Material Tested:	Finish K-6659
Medical Research No.:	8404-001
Haskell No.:	17,414
Physical Form:	Liquid emulsion
Composition:	17.0% Active ingredients: 57.8% Synlube 6277A 41.2% NRD-322 (a fluorocarbamate) 0.6% Zonyl® FSN 0.4% Triethanolamine 83.0% Water
Other Codes:	K-6659
Stability:	The test material was assumed to be stable throughout the exposure phase of the study.
Sponsor:	Fibers Department E. I. du Pont de Nemours and Company, Inc. Wilmington, Delaware
Material Submitted By:	R. L. Hackert Fibers Department E. I. du Pont de Nemours and Company, Inc. Seaford, Delaware

GENERAL INFORMATION (Cont'd)

In-Life Phase
Initiated - Completed: 8/11/88 - 8/31/88

Notebook: E-56798, pp. 100-132.

There are 8 pages in this report.

Distribution:

A. H. Roede	(2)
R. L. Hackert	(1)
N. C. Chromey/R. Valentine	(1)
J. C. Mackay, II	(1)

Inhalation Approximate Lethal Concentration (ALC) of Finish K-6659 (17% Emulsion)

SUMMARY

Groups of 6 male Crl:CD®BR rats were exposed for a single, 4-hour period to atmospheres of Finish K-6659 (17% emulsion) in air. Test atmospheres were generated by atomizing the liquid test material with a nebulizer. Atmospheric concentrations of aerosol were measured by gravimetric analysis. After exposure, rats were observed for clinical signs of toxicity during a 14-day recovery period.

Deaths occurred following exposure to Finish K-6659 at aerosol concentrations of 140 mg/m^3 or greater; all deaths occurred within 1 day of exposure. Clinical signs of toxicity included ocular, nasal or oral discharges and labored breathing immediately after exposure and slight to moderate weight losses during the recovery period. Under the conditions of this study, Finish K-6659 is considered to be highly toxic on an acute inhalation basis.

Work by: James Mackay II
James C. Mackay, II
Technician

Study Director: R Valentine
Rudolph Valentine, Ph.D.
Research Toxicologist
Acute and Developmental Toxicology Division

Reviewed and Approved for Issue: R Valentine 9/20/88
Rudolph Valentine, Ph.D.

RV:alr:104.7

QUALITY ASSURANCE DOCUMENTATION

STUDY: MR 8404-001 Inhalation Approximate Lethal Concentration (ALC)
H# 17,414 of Finish K-6659 (17% Emulsion)

AUDITS:

Items Audited	Audit Dates
Protocol, Records, and Final Report	9/14-15/88

SHORT-TERM AUDIT REPORT NUMBER: R-437
DATE FINDINGS REPORTED TO MANAGEMENT AND STUDY DIRECTOR: 9/15/88

In-life critical phases from a representative study of this test type are inspected quarterly. Since short-term studies are numerous and routine in nature, the in-life critical phases from one study exemplify the conduct of other studies from the same test type.

Reported by: William J. Lynam 9/16/88

William J. Lynam
Quality Assurance Auditor

Date

INTRODUCTION

The purpose of this study was to determine a 4-hour inhalation ALC for Finish K-6659 in male rats. The ALC was defined as the lowest atmospheric concentration tested that caused the death of 1 or more rats either on the day of exposure or within 14 days post exposure. Except as documented in the study records, this study was conducted according to the applicable Good Laboratory Practice Regulations.

MATERIALS AND METHODS

A. Animal Husbandry

Young adult male Crl:CD®BR rats were received from Charles River Breeding Laboratories, Kingston, New York. Each rat was assigned a unique 6-digit identification number which corresponded to a numbered card affixed to the cage. Rats were quarantined for approximately one week prior to testing, and were weighed and observed three times during the quarantine period. During the test, rats were housed in pairs in 8" x 14" x 8" suspended, stainless steel, wire-mesh cages. The rat assigned the lower number in each cage was identified by a slash in the right ear. Prior to exposure, rats' tails and cage cards were color-coded with water-insoluble markers so that individual rats could be identified after exposure. Except during exposure, Purina Certified Rodent Chow® #5002 and water were available ad libitum.

Animal rooms were maintained on a timer-controlled, 12 hour/12 hour light/dark cycle. Environmental conditions of the rooms were targeted for a temperature of 23 ± 2°C and relative humidity of 50 ± 10%. Excursions outside these ranges were judged to have been of insufficient magnitude and/or duration to have adversely affected the validity of the study.

B. Exposure Protocol

Groups of 6 rats, 8 weeks old and weighing between 233 and 283 grams, were restrained in perforated, stainless steel cylinders with conical nose pieces. The restrainers were inserted into a face plate on the exposure chamber such that only the nose of each rat protruded into the chamber. Each group was exposed nose-only for a single, 4-hour period to aerosol atmospheres of Finish K-6659 in air. Rats were weighed prior to exposure, and were observed for clinical signs of toxicity during exposure. Surviving rats were weighed and observed daily for 14 days post exposure, weekends and holidays excluded.

C. Atmosphere Generation

Test atmospheres of Finish K-6659 were generated by atomization. The test material was metered into a Spraying Systems nebulizer with a Harvard® Model 975 Compact Infusion Pump. Air introduced at the nebulizer (approximately 12-18 L/min) atomized the test material and swept the resulting aerosol into a 38-L cylindrical glass exposure chamber. Test atmospheres were dispersed with a baffle within the chamber to promote uniform distribution. Chamber atmospheres were exhausted through a dry-ice cold trap and a MSA cartridge filter prior to discharge into a fume hood.

D. Analytical

The atmospheric concentration of aerosol was determined at approximately 30-minute intervals by gravimetric analysis. Known volumes of chamber atmospheres were drawn through preweighed, Gelman glass fiber (Type A/E) filters. Filters were weighed on a Cahn Model 26 Automatic Electrobalance®. The atmospheric concentration of aerosol was calculated from the difference in the pre- and post-sampling filter weights.

Particle size (mass median aerodynamic diameter and percent less than 3 and 10 um) was determined with a Sierra Series 210 cascade impactor during each exposure.[1] During each exposure, chamber temperature was monitored using a thermocouple and chamber oxygen concentration was measured with a Biosystems® Model 3100R oxygen analyzer. Although relative humidity was measured with a Bendix Model 566 psychrometer during each exposure, the relative humidity values were incorrect due to improper sampling procedure.

E. Records Retention

All raw data and the final report will be stored in the archives of Haskell Laboratory for Toxicology and Industrial Medicine, Newark, Delaware, or in the Du Pont Records Management Center, E. I. du Pont de Nemours and Company, Inc., Wilmington, Delaware.

RESULTS

A. Exposure Conditions and Associated Mortality

Aerosols of Finish K-6659 were readily observed during the exposures. Chamber temperature ranged from 19-22°C and chamber oxygen concentration was 21.0%. Atmospheric aerosol concentrations and rat mortality data for each exposure are summarized in the following table.

Characterization of Finish K-6659 Atmospheres and Rat Mortality

Aerosol Concentration (mg/m^3)[a]				% Particles[b]		MMD[c]	Mortality
Mean	S.D.	Range	n	<3 um	<10 um	(um)	(# deaths/# exposed)
82	7.2	76 - 96	6	38	94	3.6	0/6
94	8.3	83 - 100	6	26	92	4.4	0/6
140	18	110 - 160	6	24	84	5.0	2/6
300	50	240 - 380	8	33	88	4.3	6/6

[a] Values shown represent the mean, standard deviation (S.D.), range and number of observations (n) for each exposure. Aerosol concentrations were based on wet filter weights. Since no significant weight losses were noted after desiccation of filter samples, the filter mass was assumed to represent the total amount of polymer present.

[b] Percent by weight of particles with aerodynamic diameter less than 3 and 10 um.

[c] Mass median aerodynamic diameter.

B. Clinical Observations

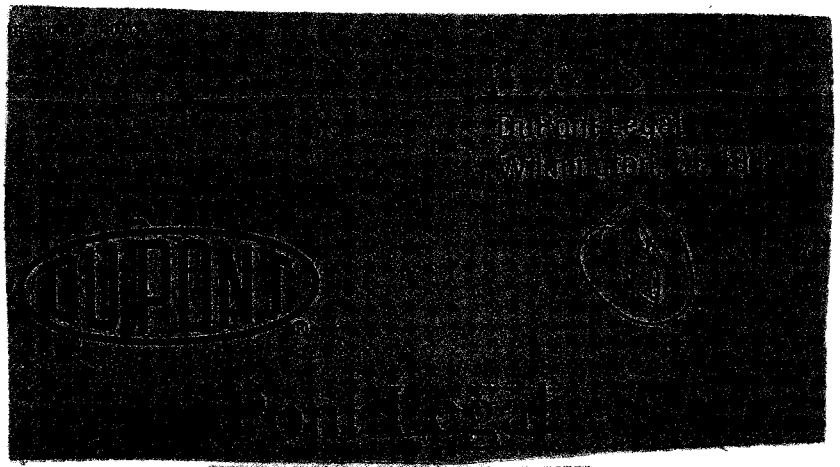
No clinical signs of toxicity were observed during exposure. Upon release from the restrainers at the end of exposure, rats exhibited ocular, nasal or oral discharges and labored breathing.

Deaths occurred following exposure to Finish K-6659 at aerosol concentrations of 140 mg/m^3 or greater. All deaths occurred within 1 day of exposure. Other than slight to moderate weight losses (up to 7% of initial body weight) in some rats within 1 day of exposure, no clinical signs of toxicity were observed during the recovery period. All surviving rats began to regain weight by day 2 post exposure.

DISCUSSION AND CONCLUSION

Under the conditions of this study, the ALC for Finish K-6659 is 140 mg/m^3 of aerosol. This material is considered to be highly toxic on an acute inhalation basis (ALC between 80 and 200 mg/m^3).

[1] Calculation described in Sierra Instruments, Inc., Bulletin 7-79-219IM, Instruction Manual: Series 210 Ambient Cascade Impactors and Cyclone Preseparators.



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